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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/622,044	12/13/2000	Frederic Bordeaux	195910US0PCT	4048
22850	7590	10/27/2003		
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER ROSSI, JESSICA	
			ART UNIT 1733	PAPER NUMBER 22
DATE MAILED: 10/27/2003				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicant(s)

09/622,044

Applicant(s)

BORDEAUX ET AL.

Examiner

Jessica L. Rossi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 9/15/03, Amendment E.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12,15-22 and 26-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12,15-22 and 26-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 April 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. This action is in response to the amendment dated 9/15/03. Claims 13-14 were canceled. Claims 12, 15-21, and 26-29 are pending.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claims 12, 15-19, and 28-29 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Kramling et al. (US '647; of record) in view of Rieser et al. (US '415; of record), or alternatively, Rieser in view of Kramling, as set forth in paragraph 5 of the previous office action, paper no. 18.

With respect to claims 12 and 28-29, Kramling is directed to making an anti-laceration automobile side window glazing (column 1, lines 8-9; column 5, lines 20-21) by adhering two glass sheets using an adhesive interlayer (column 3, lines 39-41). The reference teaches each of the glass sheets having a thickness of 1.5-4 mm (column 3, lines 21-23) and tempering each of the glass sheets to have a core compressive stress in the central zone ranging from 1-50 MPa (abstract; column 1, lines 10-13; column 3, lines 23-33). However, the reference is silent as to the thickness of the adhesive layer being more than 0.76 mm and the glazing having a TLI of 7 or less in the non-intact and bent state.

It is known in the art to make an anti-laceration automobile window glazing (column 1, lines 25-30) by adhering glass sheets having a thickness (column 6, lines 47-53; column 5, lines 54-56) that falls within the range disclosed by Kramling using an adhesive interlayer having a

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thickness of 0.03-0.06 in (0.76-1.52 mm) (column 5, lines 59-63), as taught by Rieser. It is noted that Rieser, like Kramling, teaches tempering the glass sheets prior to bonding (column 2, lines 49-50; column 3, lines 3-8; column 6, lines 10-15 and 26-30).

Rieser teaches using an interlayer having a thickness within a range consistent with that of the claimed invention because this produces a glazing of optimum safety having better yield upon impact than prior art interlayers having a thickness outside this range (column 5, lines 54-58).

Therefore, one reading the Kramling reference as a whole would have appreciated that the thickness of the adhesive layer is not critical to the invention and therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to make the anti-laceration side window glazing of Kramling using an adhesive having a thickness greater than 0.76 mm because such is known in the art, as taught by Rieser, and this would result in the anti-lacerative benefits mentioned in the preceding paragraph.

The skilled artisan would have appreciated that the TLI is a notoriously well-known and conventional index used to evaluate the severity of lacerations received when a passenger impacts a car window during a collision (see specification, p. 3; attachment to Applicants response dated 9/15/03). The skilled artisan would have also appreciated that the severity of lacerations received is a function of how the glass behaves upon impact, which is a function of the thickness of the adhesive, the thickness of the glass sheets, and the mechanical strength of the glass sheets; therefore, the TLI of a glazing is intrinsic.

Although Kramling in view of Rieser does not expressly teach the TLI of the glazing in a non-intact and bent state, the skilled artisan would have appreciated that this glazing in a non-

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intact and bent state would have a TLI of less than 7 since this glazing has the same adhesive thickness, glass sheet thicknesses, and mechanical strength as that of the claimed invention.

Alternatively, it would have been obvious to one of ordinary skill in the art at the time the invention was made to temper the glass sheets of Rieser to have a core compressive stress in the central zone ranging from 1-50 MPa and use the anti-laceration glazing as an automobile side window, as taught by Kramling, because this allows the glass sheets to be relatively thin while allowing them to break into large splinters that remain glued to the adhesive upon impact, thereby ensuring the safety of the passengers (Kramling; column 1, lines 15-17; column 8, line 68 – column 9, line 6).

Regarding claim 15, Rieser teaches the interlayer having a thickness not more than 2 mm.

Regarding claim 16, Rieser teaches the interlayer having a thickness of not more than 1.9 mm.

Regarding claim 17, Rieser teaches the interlayer having a thickness of not more than 1.53 mm.

Regarding claim 18, Kramling (column 3, line 42) and Rieser (column 1, lines 35-41; column 6, lines 29-30) teach the adhesive can be PVB.

Regarding claim 19, Kramling is silent as to the adhesive being thermoplastic polyurethane. Selection of a particular adhesive would have been within purview of the skilled artisan depending on the desired characteristics of the adhesive. However, it would have been obvious to use thermoplastic polyurethane as an alternative to PVB because such is known in the art, as taught by Rieser (column 1, lines 35-41).

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4. Claims 20-22 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Kramling et al. and Rieser et al., or alternatively, Rieser and Kramling as applied to claim 18 above, and further in view of the Admitted Prior Art in the specification of the present application, as set forth in paragraph 6 of the previous office action.

Regarding claims 20-22, selection of a particular interlayer would have been within purview of the skilled artisan at the time the invention was made depending on the desired characteristics. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use other interlayers such as polyethylene in the form of an ionomer resin, where the ionomer resin is a (meth)acrylic acid and ethylene copolymer, or a thermoplastic polyester such as poly(ethylene terephthalate) because such is known in the art, as taught by the Admitted Prior Art (p. 2, 4th paragraph).

5. Claims 26-27 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Kramling et al. and Rieser et al., or alternatively Rieser and Kramling, as applied to claim 12 above, and further in view of Fukawa et al. (US '074; of record), as set forth in paragraph 7 of the previous office action.

Regarding claim 26, Kramling and Rieser are silent as to the glazing comprising at least one functional layer. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the glazing of Kramling or Rieser comprise at least one functional layer because such is known in the art, as taught by Fukawa (Figure 13; column 2, lines 25-26; column 5, lines 50-56), and this enhances the aesthetics of the glazing (column 5, lines 50-55).

Regarding claim 27, Kramling and Rieser are silent as to the glazing having a plastic sheet on one of its outer faces. It would have been obvious to one of ordinary skill in the art at

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the time the invention was made to include a plastic sheet on one of the outer faces of the glazing of Kramling or Rieser because such is known in the art, as taught by Fukawa (Figures 5 and 11-14; column 2, lines 23-24), and this allows the properties of the glazing to be manipulated.

Response to Arguments

6. Applicant's arguments filed 9/15/03 have been fully considered but they are not persuasive.

7. On page 6 of the arguments, Applicants argue that the cited prior art fails to teach or suggest improved protection for people striking against a non-intact laminated glazing.

The examiner points out that this argument is not commensurate with the scope of the claimed invention.

8. On page 8 of the arguments, Applicants argue that because the cited prior art fails to teach or suggest a TLI of 7 or less by adhering together an adhesive layer having a thickness greater than 0.76 mm, two sheets of glass having a thickness of from 1.5 to 3 mm, and having a core compressive stress in the central zone ranging from 20-50 MPa, the examiner has not established a prima facie case of obviousness.

The three criteria for establishing a prima facie case of obviousness are motivation, reasonable expectation of success, and all the limitations being taught or suggested.

Regarding the first criteria, one skilled in the art would have been motivated by the teaching of Rieser to use an adhesive layer having a thickness greater than 0.76 mm for the glazing of Kramling because such a thickness used in combination with glass sheets each having a thickness consistent with that of Kramling is known in the art, for producing a glazing having optimum safety, as taught by Rieser. Alternatively, one skilled in the art would also have been

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motivated by the teachings of Kramling to temper the glass sheets of Rieser to have a core compressive stress in the central zone ranging from 1-50 MPa because such strengthening is known in the art for improving the safety of a glazing, as taught by Kramling.

Regarding the second criteria, one skilled in the art would predict a reasonable expectation of success when combining the teachings of Kramling and Rieser to produce an anti-lacerative glazing, because working with such parameters as adhesive and glass thickness and glass strength is well known in the art.

Regarding the third criteria, just because a limitation is not expressly stated in a reference does not mean the reference fails to meet this limitation. Therefore, Kramling in view of Rieser, or alternatively, Rieser in view of Kramling, does teach or suggest all the claimed limitations, as set forth in paragraph 3 above.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.


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10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Jessica L. Rossi** whose telephone number is **703-305-5419** (571-272-1223 come mid December). The examiner can normally be reached on M-F (8:00-5:30) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard D. Crispino can be reached on 703-308-3853. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Jessica L. Rossi
Patent Examiner
Art Unit 1733



JEFF H. AFTERGUT
PRIMARY EXAMINER
GROUP 1300